

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

DESCRIPTION OF A NEW SUBSPECIES OF MOOSE
FROM WYOMING.

BY E. W. NELSON.

It has been known for many years that moose inhabit parts of the northern Rocky Mountain region in the States of Wyoming, Montana and Idaho, especially in and about the Yellowstone National Park. It is also known that they were formerly more widely distributed than at present, but their range has been restricted and their numbers diminished in most places by modern developments in their country. Their present center of abundance appears to be along the Yellowstone River and about the south end (or head) of Yellowstone Lake in the Yellowstone National Park.

We are indebted to George Shiras, 3d, for nearly all we know concerning the life history of these animals. During the late summers and autumns of 1908, 1909 and 1910 Mr. Shiras visited the head of Yellowstone Lake and ascended the Yellowstone River, and, to the surprise of every one, discovered that moose were amazingly numerous there. He saw 21 moose in the shallow water at the head of the lake at one time and estimated that there were about 1500 in this district. Owing to prohibition of shooting in the park, and the unfrequented section they occupy, they showed little alarm at the presence of Mr. Shiras and his party. In the National Geographic Magazine for July, 1913 (Vol. XXIV, No. 7), Mr. Shiras gives an account of his observations of these moose, a map of their distribution in the park and a series of fine photographs of these animals taken by day and night in their haunts. This is a remarkably interesting and valuable contribution to the

life history of one of our least known big game animals. Through the generosity of Mr. Shiras and the kind cooperation of Governor Joseph M. Carey, and State Game Warden D. F. Hudson of Wyoming, a splendid pair of these animals were collected for the Biological Survey in December, 1913, the male serving as the type of the new subspecies.

In consideration of his remarkable work in originating modern methods of flash-light photography of birds and mammals and the interest he has awakened, through this and by his writings, in animal life and its preservation, I take pleasure in offering a well-deserved tribute by naming this fine game animal in honor of George Shiras, 3d.

***Alces americanus shirasi* subsp. nov.**

SHIRAS MOOSE.

Type from Snake River, 4 miles south of Yellowstone Park, Lincoln County, Wyoming: No. 202,973, adult ♂, U. S. National Museum, Biological Survey Collection; collected December 11, 1913, by John Shive.

Distribution.—Known from the northern Rocky Mountains, in and about Yellowstone Park in Wyoming, Montana and Idaho. Probably ranges much farther north along the Rocky Mountains, but limits of range unknown.

Subspecific characters.—Differs strongly in early winter pelage from typical *Alces americanus* from Maine, Nova Scotia and New Brunswick in having the entire top of the back, including upperside of neck, rather pale rusty yellowish-brown, slightly washed on tips of hairs with dusky; ears paler and grayer; hoofs much shorter and smaller.

Description of adult male in early winter pelage (type).—Entire top of back and upper sides, including upper part of neck, rather pale rusty yellowish-brown, palest on neck and slightly darkened along top of back by a thin wash of dusky on tips of hairs; this dorsal rusty brown area shades into the deep black of lower parts of body along middle of sides; the black area of underparts covers all the lower half of the sides of body, the upper part of the front and hind legs and entire underside of body except a dull pale buffy area covering lower abdomen and inguinal region; middle parts of front and hind legs pale dull buffy, becoming dusky brown on lower hind legs and from knee to hoof on front legs; underside of neck mixed black and rusty brown; underside of head much blacker and much less mixed with rusty hairs than underside of neck; upper and lower lips narrowly bordered with grayish white; top and sides of muzzle and sides of head dusky brown, crown paler rusty brown; back of ears pale dull brownish gray; inside or front of ears, pale, slightly buffy whitish.

Measurements of type taken in the flesh.—Total length, 2540 mm.; length of hind foot, 762 mm.; greatest length of front hoof, 130 mm. (same measurement in adult ♂ from New Brunswick, 153 mm.).

Skull—So far as the small series of fully adult skulls available for comparison indicate there are no appreciable cranial differences between typical *A. americanus* and *A. americanus shirasi*.

Remarks.—A comparison of the type and an adult female topotype of the Shiras moose, with five adult specimens of typical *Alces americanus* collected during the same time of year in Maine and eastern Canada indicate that the pale brown backs, pale ears and small hoofs of the present form are very constant differences characterizing a strongly marked geographical form. The female topotype of the new form taken the same day as the type has an even paler brown back than the type, especially on the rump, top of shoulders and along the nape; the ears are also paler gray.